SONY

Videocassette Player

Model

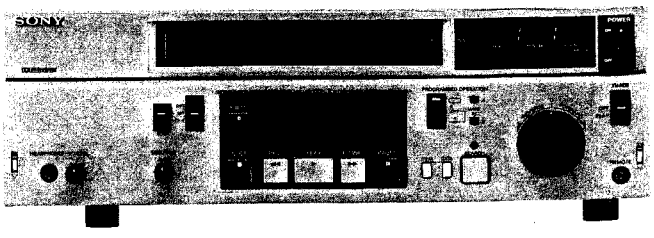
SVP-9020

Operating Instructions page 1(E)

Before operating this unit, please read this manual thoroughly and retain it for future reference.

Mode d'emploi page 1(F)

Avant la mise en service de cet appareil, prière de lire attantivement ce mode d'emploi que l'on conservera pour toute référence ultérieure.



S-VHS
625

VHS
PAL

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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer l'appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Remarque
Cet appareil est conforme à la Directive 87/308/EEC de la CEE en ce qui concerne la suppression des interférences.

FOR THE CUSTOMERS IN THE UNITED KINGDOM

WARNING
THIS APPARATUS MUST BE EARTHED

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

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About This Manual

This manual explains how to use the Sony SVP-9020 videocassette player. This section explains the purpose and organization of the manual. Reading this section first will help you decide which parts of the manual you should read first, depending on your experience of operating VTRs.

Purpose and intended readership

This manual contains the information you need to operate this player, including the names and functions of the component parts, details of settings and adjustments, and the procedures for playback.
This player is designed for use by a wide range of users, from cable television stations to general business operators. Likewise, this manual is aimed at the same wide range of users, from experienced engineers to those users who have never used this type of player before. If you find any unfamiliar terms while reading the manual, consult the footnotes at the bottom of the page as well as the glossary at the end of the manual.

Organization

The following is a brief summary of the chapters and appendixes constituting this manual. Note also that the opening page of each chapter gives a brief summary of the contents of the chapter.

Chapter 1, "SVP-9020 Introduction" describes the special features of the player.

Chapter 2, "Location and Function of Parts and Controls" explains the purposes and functions of the parts of the player.
If you have used a player before, you will be able to operate the player after briefly reading this chapter. If you have never used this type of player before, read through this chapter thoroughly to familiarize yourself with the parts and controls.
Refer to this chapter to clarify the functions of the controls while you are operating the player.

Chapter 3, "Before Using Your SVP-9020" explains necessary precautions and how to set up the player prior to operation.

Chapter 4, "Playback" explains playback, search and repeat, and timer playback.

Chapter 5, "Maintenance" explains troubleshooting, error messages and their meanings, and the cleaning of the video heads.

Appendixes

The appendixes contain the following sections:

- Menu Items and Their Functions
- Specifications
- Glossary

Index

Conventions

Procedure format

This type of figure shows the switches and controls used to achieve an operation. The numbers correspond to those in the figure that follows.

Technical terms

Technical terms are explained in the glossary of terms at the end of this manual.

Reference information

Points you to another section of the manual where you can find additional information. Written in italics.

Important notes

Be sure to read the sections marked Note. They explain points that you should be aware of if you are to operate the player correctly and prevent malfunctions. Also read "Safety Precautions" and "Handling Precautions" on page 3-3(E).

Procedure order number

Operation

Reference information

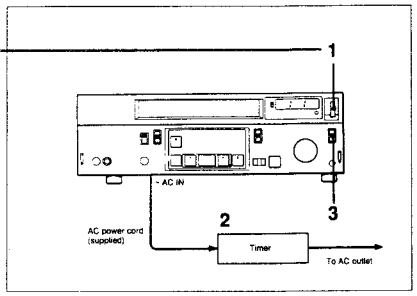
Supplementary information

Important notes

Timer Playback

Using an optional timer, you can automatically start playback at a preset time.

Timer playback



Timer playback

Chapter 4

1 Set the POWER switch of the VCR to ON.

2 Set the playback start and stop times with the timer.
For details, refer to the operation manual provided with the timer.

3 Set the TIMER switch to PLAY.
The timer automatically turns on the VCR power at the playback start time.

To stop playback during timer playback
Press the STOP button of the VCR.

Notes

- The player automatically rewinds the tape then stops. If, however, you set repeat playback between a particular point and the tape end, the player automatically rewinds the tape, enters repeat playback mode and starts playback repeatedly upon reaching the tape end.
- When the playback stop time is reached, the timer turns off the player power with the tape wound around the head drum. At the next playback start time, the timer again automatically turns on the player power. The tape stops momentarily, then timer playback starts.

4-14(E) Chapter 4 Playback

Chapter 1
SVP-9020 Introduction

This chapter describes the special features of the player.

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SVP-9020 Features

The player has the following features.

High picture quality

S-VHS format

This player uses the S-VHS format. This provides a high-quality color pictures with a resolution of more than 400 lines.

Wide track design

The playback devices of this player incorporate a 58 µm track design to enable stable sound and pictures.

Digital comb filter

This player uses a digital comb filter to separate the composite video signal into Y and C signal. This enables sharp picture definition.

YX filter

This player also uses a YX filter to reduce cross-color (where one color mixes with another) or beat (diagonal stripes).

High sound quality

Hi-fi audio playback (four-channel audio signal playback)

This player provides high-quality sound playback. You can select palyback of the normal audio channel, or of the hi-fi audio channel.

High reliability

Direct-drive reel motors

This player employs two direct-drive reel motors. A highly rigid material is used for the lower drum to prolong its service life. In addition, the beltless mechanism offers high reliability.

Wide range of functions

LED time counter

The time counter displays the control (CTL) signals recorded onto a tape to indicate the tape running time in hours, minutes and seconds.

High-speed picture search
This player supports high-speed picture search with a search dial. Recognizable color pictures at speeds ranging from 1/20 to 10 times normal speed are available in search mode. This facility allows any desired point on the tape to be located quickly.

Programmed operation
Programmed operation allows you to locate specified points on a tape and to automatically repeat a desired portion.

Timer playback
By setting the TIMER selector to PLAY, the player plays back when the power is automatically turned on.

Menu function
The menu function allows settings to be made easily by using the buttons on the front panel.

Playback of dual color systems
This player can play back both PAL- and NTSC-recorded signals through SYSTEM SELECT switch setting. The NTSC-recorded signals are played back based on the $NTSC_{4.43}$ system.

Auto head cleaner
Each time the player starts and ends playback, a cleaning roller automatically passes over the video/FM audio (rotary) heads, removing tape residue and enabling preventive care of the tape heads.

Automatic cassette ejection at tape end
When a tape reaches its end, the player automatically ejects the cassette. This prevents accidental erasure of valuable data. Automatic tape ejection can be inhibited through menu operation.

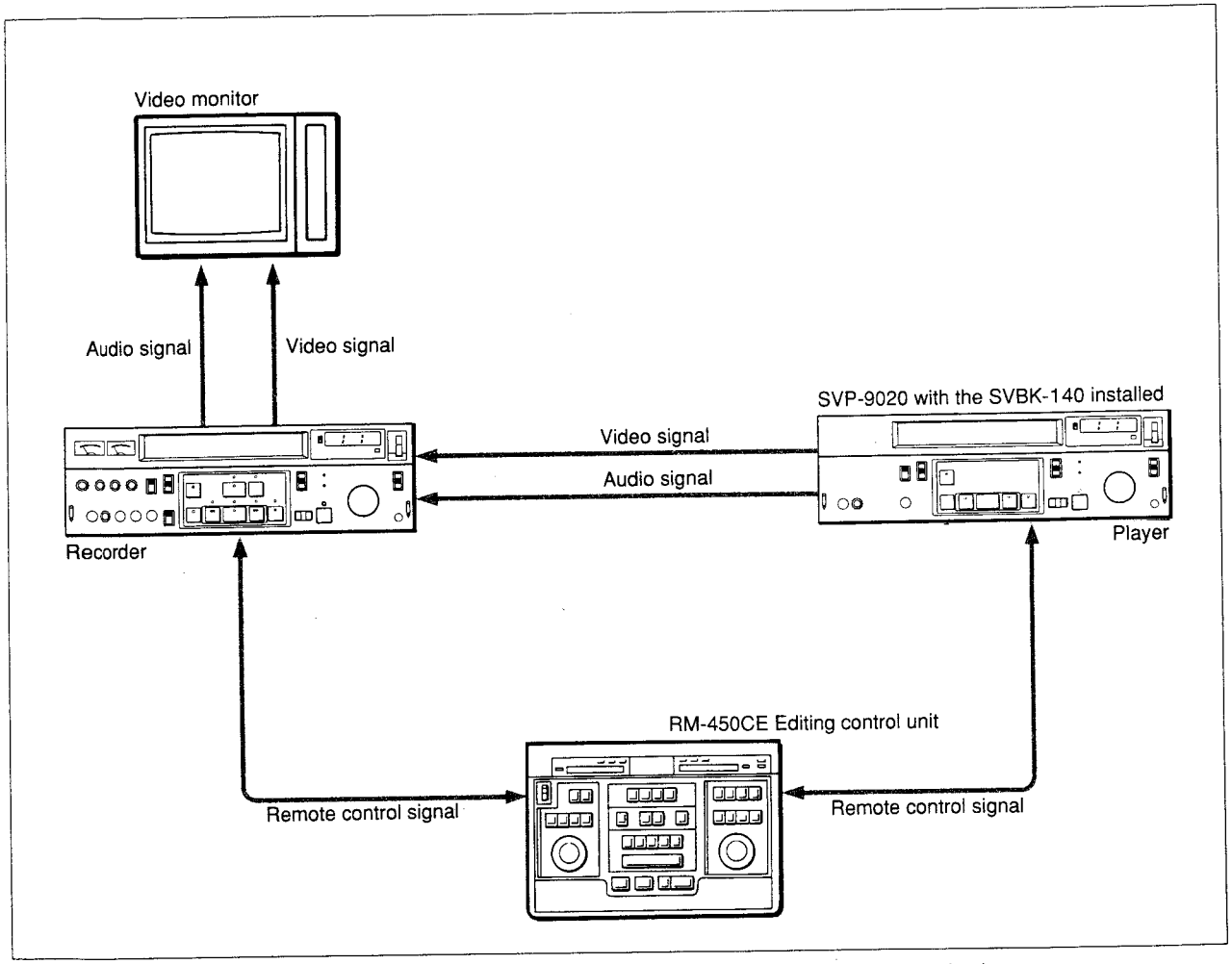
Connectors

External SYNC IN connector
The SYNC IN connector enables the player to be synchronized with other video equipment.

8-pin VTR connector
The TV OUT connector allows the player to simultaneously monitor video and audio signals by connecting an external monitor with a single cable.

Suggested Configurations for Controlling the Player Using a Simple Editing Control Unit

The following configuration is suggested for controlling the SVP-9020 with the optional SVBK-140 RS-422A interface board and other video equipment by using the RM-450CE editing control unit.



Suggested configurations for controlling the player using a simple editing control unit

Optional Accessories for Expanding the System

The following accessories can be used to enhance the player.

Model name	Function
SVRM-100 Remote control unit	This unit enables remote control of the player by connecting the unit to the REMOTE connector of the player. But, the following buttons do not function in this configuration. • FREEZE button • REC button • INDEX button • MARK button • ERASE button
SVBK-100 33-pin interface board	This board provides a 33-pin parallel interface that enables the player to be connected to a remote control unit (RM-580/500/450CE/440 etc.) employing a 33-pin parallel interface board. You can thus control the player from the remote control unit. (However, the editing function of the RM-450CE/440 does not operate.)
SVBK-120 RS-232C interface board	This board provides an RS-232C serial interface that allows a computer to be connected. You can thus control the player from a computer.
SVBK-130 Satellite interface board (available soon)	This board provides a satellite interface. You can use this board to construct a satellite system.
SVBK-140 RS-422A interface board	This board provides an RS-422A serial interface that allows the RM-450CE editing control unit to be connected. You can thus control the player from this editing control unit.
SVBK-150 Digital noise reduction board	This board reduces digital chroma noise and corrects time base errors to increase picture sharpness, reduce jitter, and reduce color drop out interpolation.
SVBK-160 Time code board	This board reads and generates time codes. When you want to play back a tape onto which time codes have been recorded, use this board with the SVBK-130 or SVBK-140 because this board can not function without them. For details, refer to the operation manual supplied with the SVBK-160 or contact your Sony dealer.

Chapter 2
Location and Function of Parts and Controls

This chapter explains the purposes and functions of the parts of the player.
If you have used a player before, you should be able to operate the player after briefly reading this chapter. If you have never used this type of player before, read through this chapter thoroughly to familiarize yourself with the parts and controls. While you are operating the player, refer to this chapter to clarify the functions of the controls.

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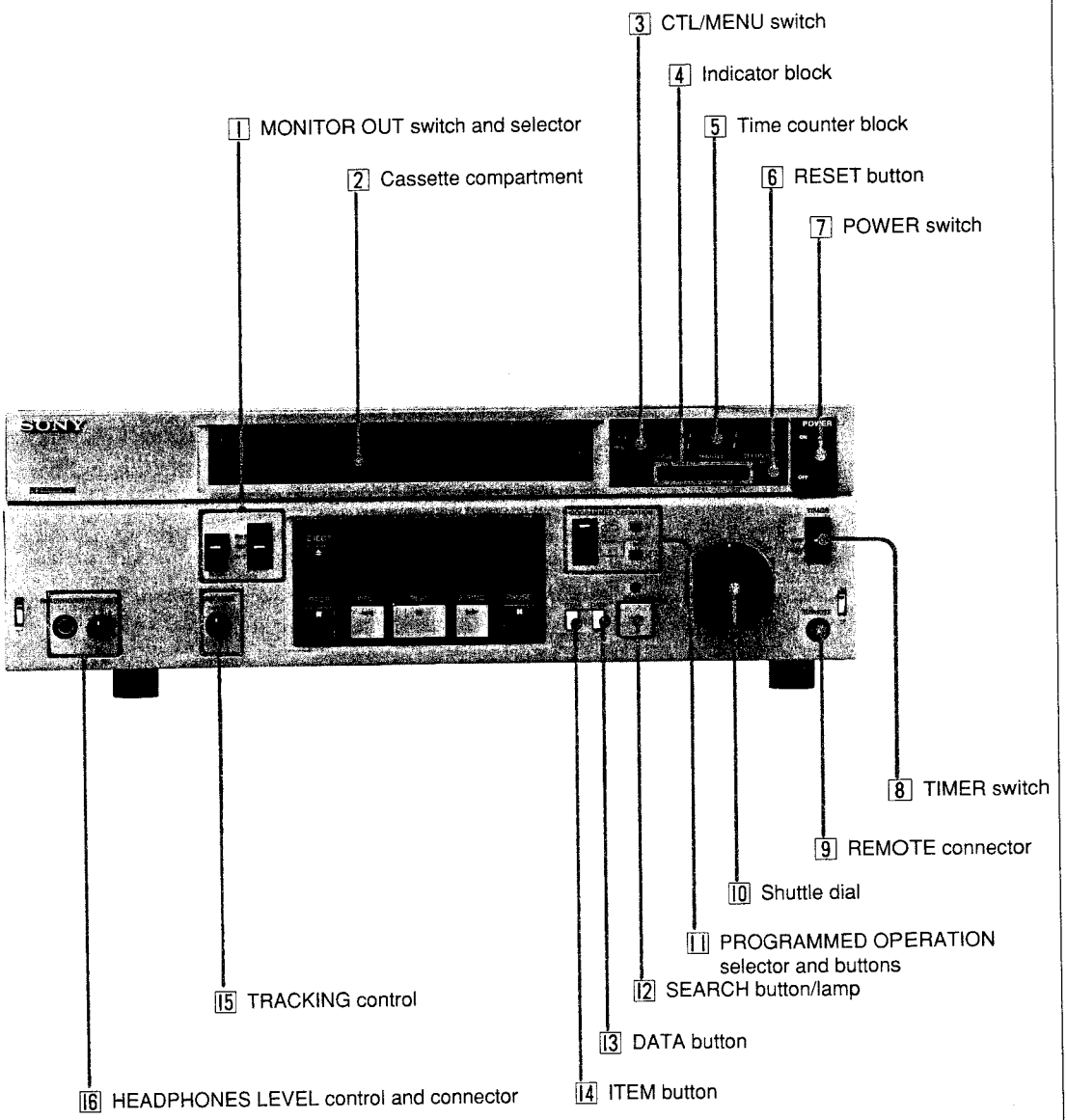
Sub Panel ..... **2-7(E)**
Rear Panel ..... **2-9(E)**

Front Panel



Front panel

[1] MONITOR OUT switch and selector Hi-Fi/NORM switch

This switch is used to select the audio output signal to be output to the AUDIO MONITOR connector on the rear panel.

Hi-Fi: When the player is playing back a signal, an output audio signal, recorded in hi-fi recording mode is output to the HEADPHONES connector, AUDIO MONITOR connector and TV OUT connector.

NORM: When the player is playing back a signal, the output audio signals, recorded in normal recording mode are output to the HEADPHONES connector, AUDIO MONITOR connector and TV OUT connectors.

CH-1/MIX/CH-2 selector

This selector is used to select the channel to be output through the HEADPHONES connector, AUDIO MONITOR connector, and TV OUT connector. It can also be used to select the channel to which the player outputs the audio signal set with the Hi-Fi/NORM switch [1].

CH-1/MIX/CH-2 selector setting	Audio signal output from HEADPHONES connector	Audio signal output from AUDIO MONITOR connector and TV OUT connector
CH-1	channel-1	channel-1
MIX	stereo audio signal	mixed from channel-1 and channel-2
CH-2	channel-2	channel-2

[2] Cassette compartment

Insert an S-VHS or VHS cassette here.

[3] CTL/MENU(control signal/menu) switch

This switch selects the data to be displayed by the time counter block [5].

CTL: reads CTL signals on the tape and displays the tape transport time in hours, minutes and seconds. Normally, keep the switch set to this position.

MENU: Displays menu settings in STOP mode. No other operations are possible in menu mode.

[4] Indicator block

Each lamp lights in the following cases:

lamp: lights when a cassette is loaded into the player.

AUTO OFF lamp: lights when the power is applied but moisture has condensed inside the player. While this indicator is lit, a cassette can not be loaded into the player.

S-VHS lamp: lights when the player is S-VHS playback mode.

[5] Time counter block

This block displays the data (time or the menu items) selected with the CTL/MENU switch [3].

[6] RESET button

Setting the CTL/MENU switch [3] to CTL causes the tape transport time to appear on the time counter block [5]. Pressing this button resets the indicator to "0:00:00."

[7] POWER switch

This switch turns on the power of the player. The time counter block [5] will light.

[8] TIMER switch

This switch is used to enable automatic playback with an optional timer.

OFF: no timer is used. Normally, keep the selector set to this position.

PLAY: automatic playback with a timer.

[9] REMOTE connector (stereo minijack)

This connector is used to connect the optional SVRM-100 remote control unit. Playback, fast-forward, rewind and search operations can be remotely controlled.

[10] Shuttle dial

By turning this dial with the SEARCH button [12] held down, the playback speed can be varied between 1/20 and 10 times normal speed. Turning the dial clockwise (to FORWARD) makes the tape run forwards. Turning the dial counterclockwise (to REVERSE) makes the tape run backwards. At the center "0" position, a still picture is output.

[11] PROGRAMMED OPERATION selector and buttons

This selector and buttons are used to enable programmed operation.

PROGRAMMED OPERATION selector

A/B :

- To repeatedly play a particular portion.
- To check the points memorized with the MARK IN A and B buttons.

OFF:

- For normal operation. When the player is to be controlled from a remote control unit connected to the REMOTE connector, set this switch to OFF.
- To memorize points set with the MARK IN A and B buttons for programmed operation.

A :

- To locate a point memorized with the MARK IN A button.
- To memorize points, set with the MARK IN A button, for programmed operation.

MARK IN A and B buttons

Press to memorize the current time counter value. You can memorize only one point with each button. If you press the button several times, only the last point will be memorized.

[12] SEARCH button/lamp

Press to activate the shuttle dial [10]. The lamp will light.

[13] DATA button

With the CTL/MENU switch [3] set to MENU, press this button to set the data item selected with the ITEM button [14].

[14] ITEM button

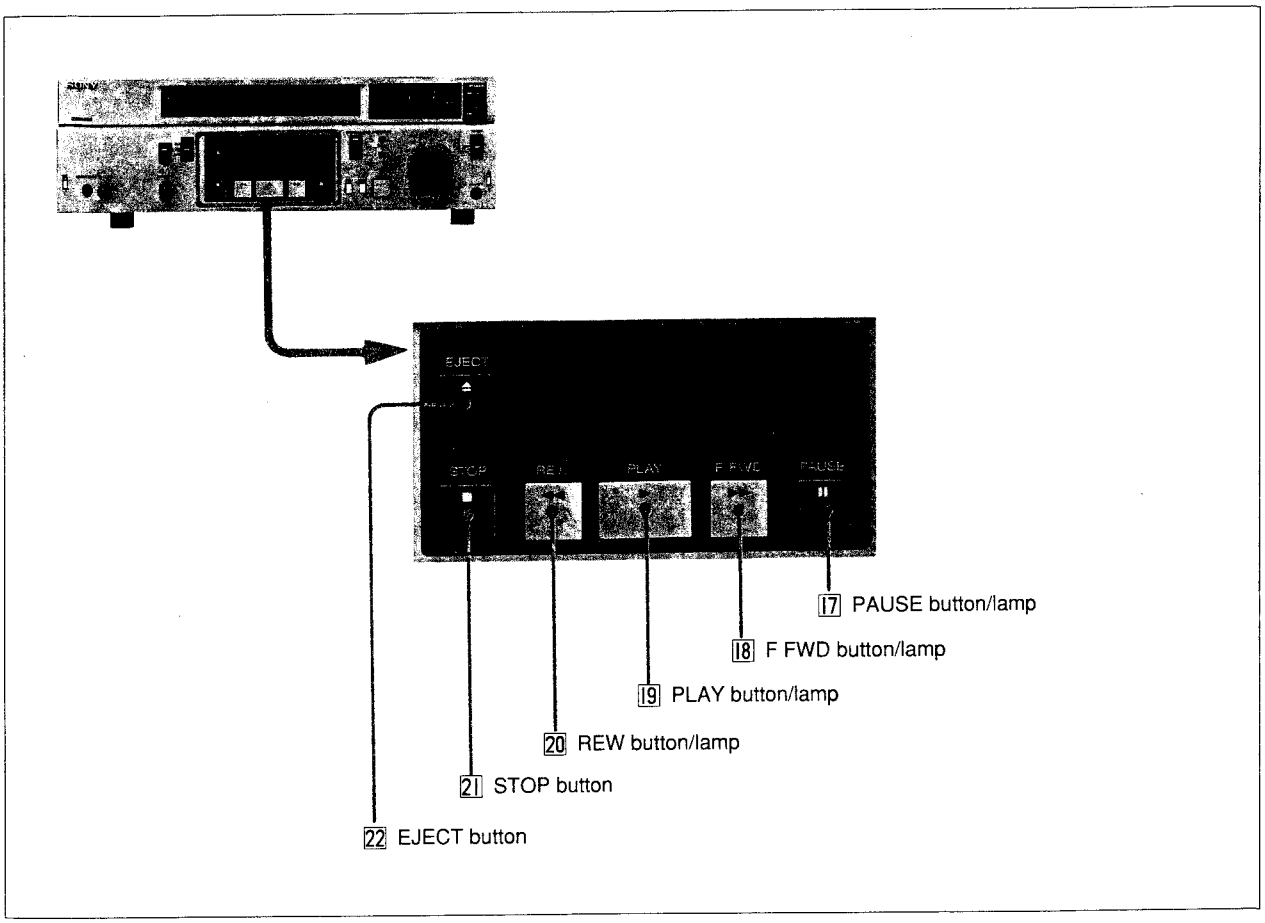
With the CTL/MENU switch [3] set to MENU, press this button to select the item to be set.

[15] TRACKING control

Normally, set this control to FIXED. Should noise, snow or streaks appear on a picture, turn this control so that the best possible picture is obtained.

[16] HEADPHONES LEVEL control and connector(stereo phone jack)

To monitor the playback audio signal selected with the MONITOR OUT switch and selector [1], connect a pair of stereo headphones here. Adjust the volume with the LEVEL control.



Front panel (continued)

17 PAUSE button/lamp
Press to stop the tape momentarily. The lamp lights while the player is in STOP mode. To restart the tape, press the PAUSE button again.

18 F FWD(fast-forward) button/lamp
Press to fast-forward the tape. The lamp lights during fast-forwarding.

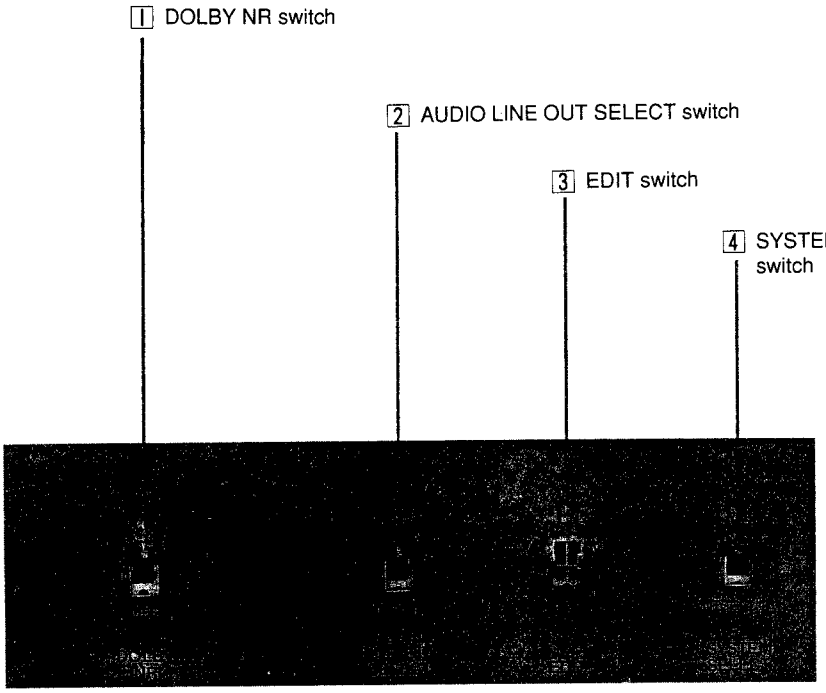
19 PLAY(playback) button/lamp
Press to play back the tape. The lamp lights.

20 REW(rewind) button/lamp
Press to rewind the tape. The lamp lights while the player is rewinding the tape.

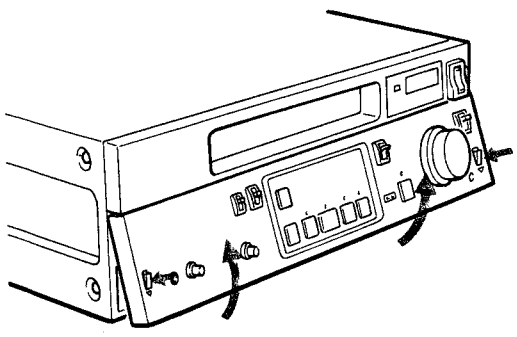
21 STOP button
Press to completely stop the tape transport.

22 EJECT button
Press to eject the cassette.

Sub Panel

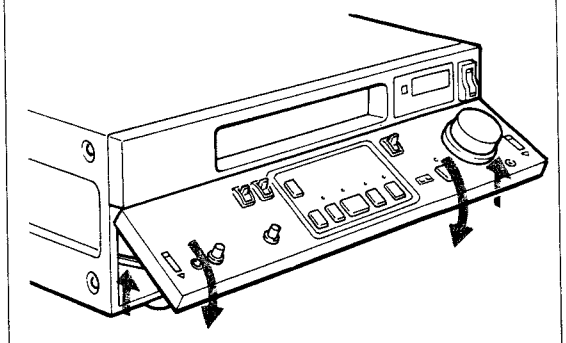


How to open the lower front panel



While pushing down the buttons on the right and left sides of the panel, pull the lower panel up.

How to close the lower front panel



While lifting the stays on the right and left sides of the panel, drop the lower panel down.

Sub panel

1 DOLBY NR switch

This switch is used to select whether the Dolby[1] NR system is applied to playback. This system provides a high S/N ratio and improves sound quality.

ON: plays back the sound with the Dolby NR system.

OFF: plays back the sound without the Dolby NR system.

Note

Be sure to make the same selection when recording and playing back. If the DOLBY NR switch is set to OFF when the player is playing back a signal recorded with the Dolby NR system, high sound levels may be emphasized.

2 AUDIO LINE OUT SELECT switch

This switch is used to select the audio signal to be output from the AUDIO OUT NORM/Hi-Fi connectors on the rear panel.

HiFi: outputs a hi-fi recording signal.

NORM: outputs a normal recording signal.

Note

The hi-fi recording signal is output from the AUDIO OUT Hi-Fi connector, regardless of how this switch is set.

3 EDIT switch

Set this switch to ON when duplicating a signal. This will prevent degradation of the video signal.

ON: Duplicating the signal

OFF: Normal operation

4 SYSTEM SELECT switch

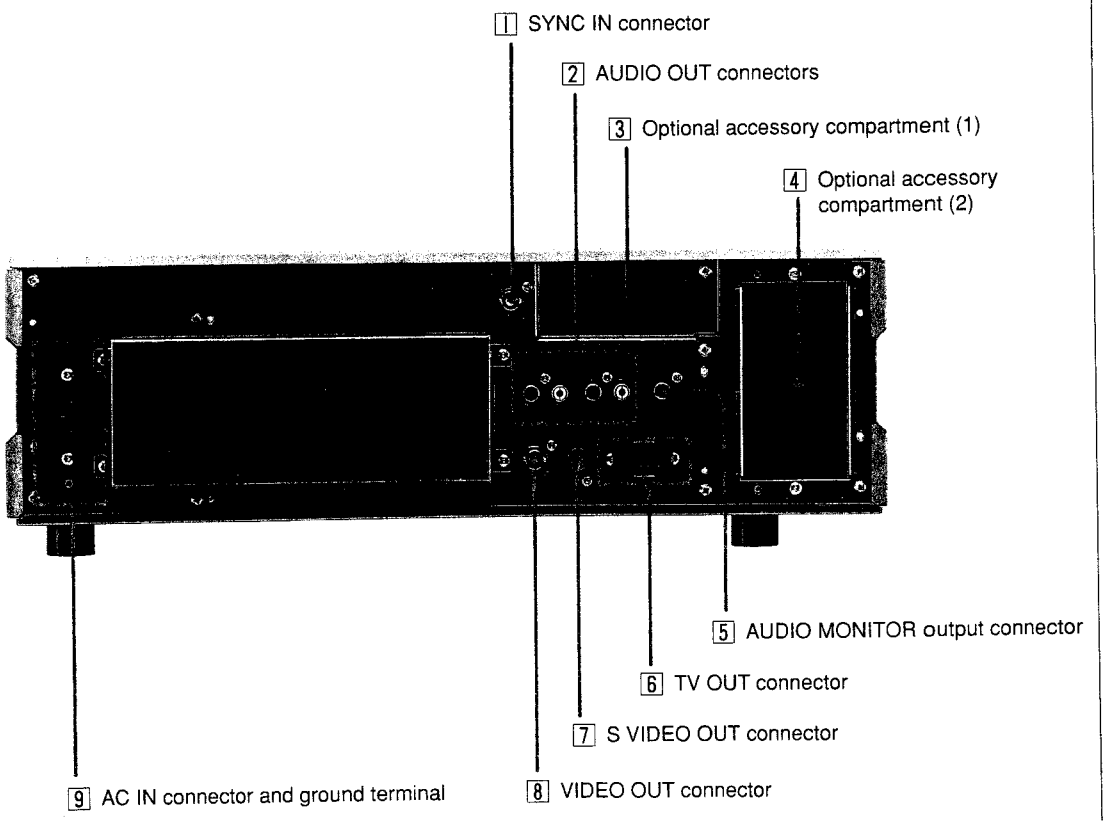
This switch is used to select the color system of video signals to be played back.

PAL: To play back PAL-recorded signals. Normally, set this switch to this position.

NTSC 4.43: To play back NTSC-recorded signals using a monitor which can display signals of multiple color systems, such as Sony PVM-1442QM.

1) Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

Rear Panel

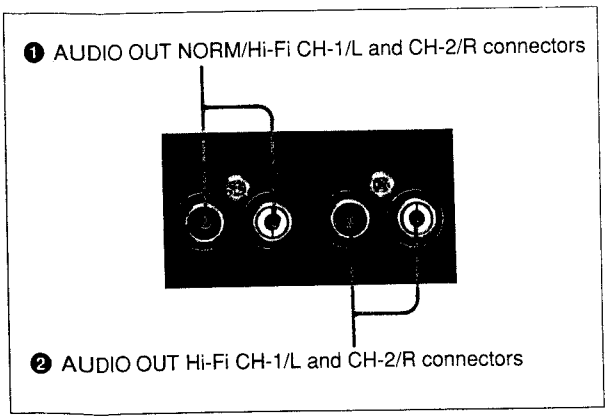

1 SYNC IN connector
2 AUDIO OUT connectors
3 Optional accessory compartment (1)
4 Optional accessory compartment (2)
5 AUDIO MONITOR output connector
6 TV OUT connector
7 S VIDEO OUT connector
8 VIDEO OUT connector
9 AC IN connector and ground terminal

Rear panel

1 SYNC IN(synchronizing signal input) connector (BNC type)

Used to input an external synchronizing signal.

2 AUDIO OUT(output) connectors



AUDIO OUT connectors

❶ AUDIO OUT(output) NORM/Hi-Fi CH-1/L(channel 1/left) and CH-2/R(channel 2/right) connectors (phono jacks)

Used to output the hi-fi recording or normal recording audio output signals, selected with the AUDIO LINE OUT SELECT switch on the sub panel.

❷ AUDIO OUT(output) Hi-Fi CH-1/L(channel 1/left) and CH-2/R(channel 2/right) connectors (phono jacks)

Used to output the hi-fi recording audio output signal.

3 Optional accessory compartment (1)

This compartment is used to install the SVBK-100 or SVBK-120.

Note

Nothing can be installed here when optional accessory compartment (2) 4 is being used.

4 Optional accessory compartment (2)

This compartment is used to install the SVBK-130 or SVBK-140.

Note

Nothing can be installed here when optional accessory compartment (1) 3 is being used.

5 AUDIO MONITOR output connector (phono jack)

Used to output the audio signal selected with the MONITOR OUT CH-1/MIX/CH-2 selector on the front panel.

6 TV OUT (output) connector (8-pin)

Used to output the video and audio signal to a video monitor having an 8-pin VTR connector. The audio signal recorded onto the channel selected with the MONITOR OUT selector is output.

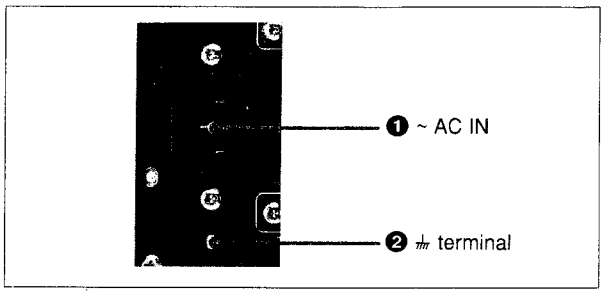
7 S VIDEO OUT (output) connector (4-pin mini DIN)

Used to output the Y and C signals separately.

8 VIDEO OUT (output) connector (BNC type)

Used to output a composite video signal.

9 AC IN(input) connector and ground terminal



AC IN connector and ground terminal

❶ ∼ **AC IN:** Used to connect the player to an AC power outlet with the supplied AC power cord.

❷ ⏚ **(ground) terminal:** Used to connect a ground line.

Chapter 3
Before Using Your SVP-9020

This chapter explains how to set up the player. You should be familiar with the contents of this chapter before attempting to operate the player.

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Precautions

Safety Precautions

Power supply

- Connect the player to a 220 to 240 V AC power outlet.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the player with a damaged power cord.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.

Do not open the cabinet

Opening the cabinet may damage precision components or result in electric shock.

Keep foreign objects out of the cabinet

Dropping flammable or metal objects into the cabinet, or spilling liquids near the player can result in serious accidents.

In case of trouble

If you notice an unusual sound, smell or smoke, turn off the power immediately, disconnect the power supply and contact your Sony dealer.

Handling Precautions

Location

Do not store or use the player under any of the following conditions:

- In excessive heat or cold (permissible temperature range: 5°C to 40°C (41°F to 104°F))
- In direct sunlight or near heaters. Remember that the temperature inside a locked automobile in summer can rise as high as 50°C (122°F).
- In damp or dusty locations
- In locations subject to vibration
- Near strong magnetic fields
- Near televisions or equipment generating strong radio frequency energy

Orientation

The player is designed to be operated horizontally. Never operate the player vertically or incline it more than 20 degrees.

Protect the player from impact

Do not drop the player or subject it to severe shocks.

Keep the player well ventilated

To prevent the temperature from rising inside the player, keep the player uncovered and well ventilated while it is operating.

Maintenance

Clean the cabinet and panels by wiping with a soft, dry cloth.
For stubborn stains, moisten the cloth with a small amount of neutral solvent, and finish by wiping with a dry cloth. Do not use alcohol, benzine, thinners or volatile liquids, as these may discolor or damage the cabinet surface.

Transporting

- Remove any cassette from the cassette compartment.
- Protect the player from impact by transporting it in its original carton or a protective case.

Moisture condensation

When the player is moved directly from a cold place to a warm place, or when the player is operated in a location having a high humidity, moisture may condense inside the player. If the tape is used under this condition, it may adhere to the head drum or the tape guide, causing damage. To prevent this, the player is equipped with a moisture detector. The AUTO OFF lamp lights to indicate that moisture has been detected inside the player. When this lamp is lit, cassettes are automatically ejected. If a cassette is inserted, the player does not function, even if a function button is pressed.

Note

When the player is first moved to a location where condensation is liable to form, we recommend that you wait for about ten minutes for the player to warm up and keep the power on so that the moisture detector will operate.

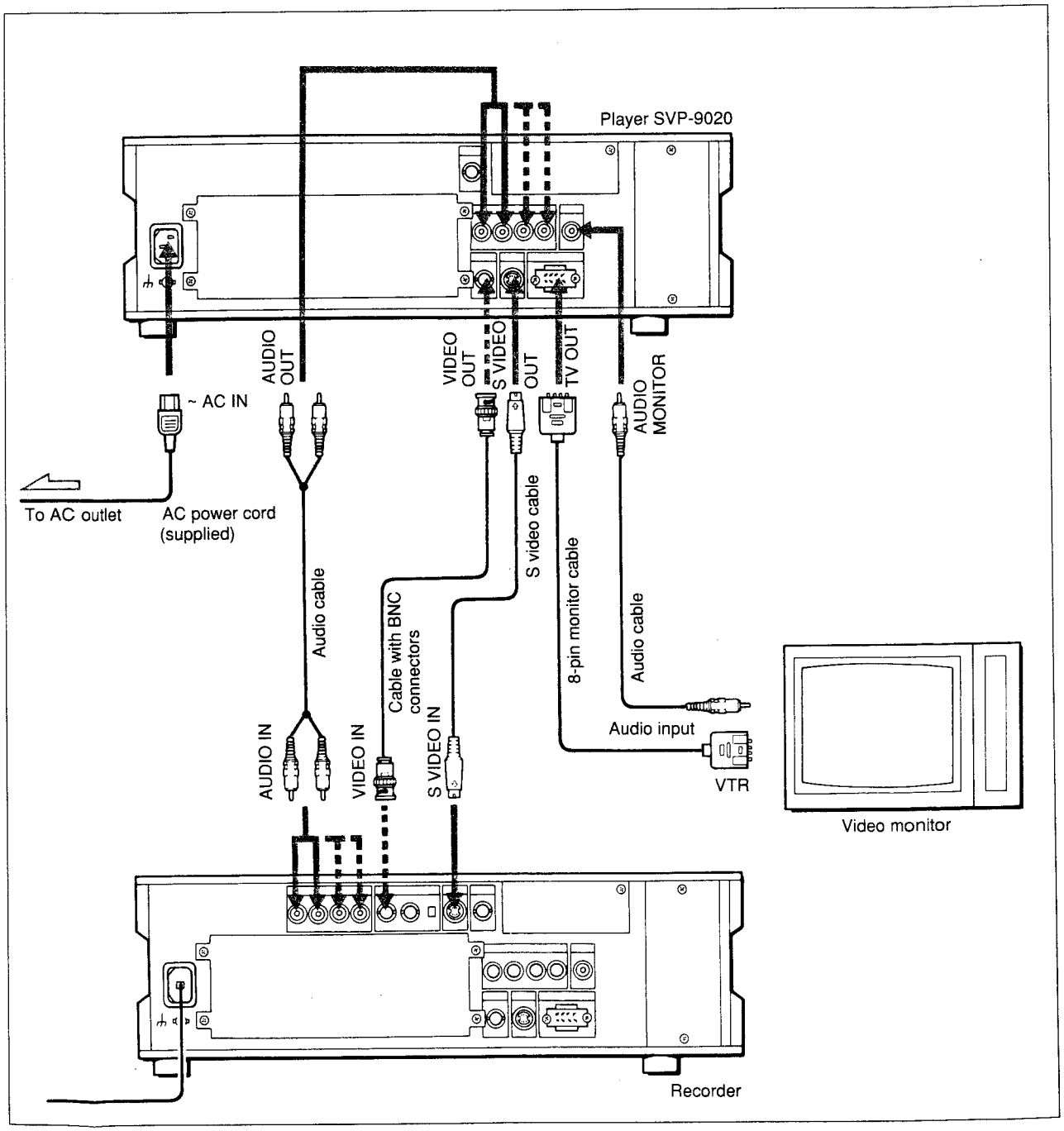
Connections

The following examples illustrate how to connect equipment using this player.

- Connecting other video equipment
- Controlling the player with a remote control unit

Connecting Other Video Equipment

The following example shows how to make the connection necessary to output video signals into recorder so that signals can be recorded with the recorder.

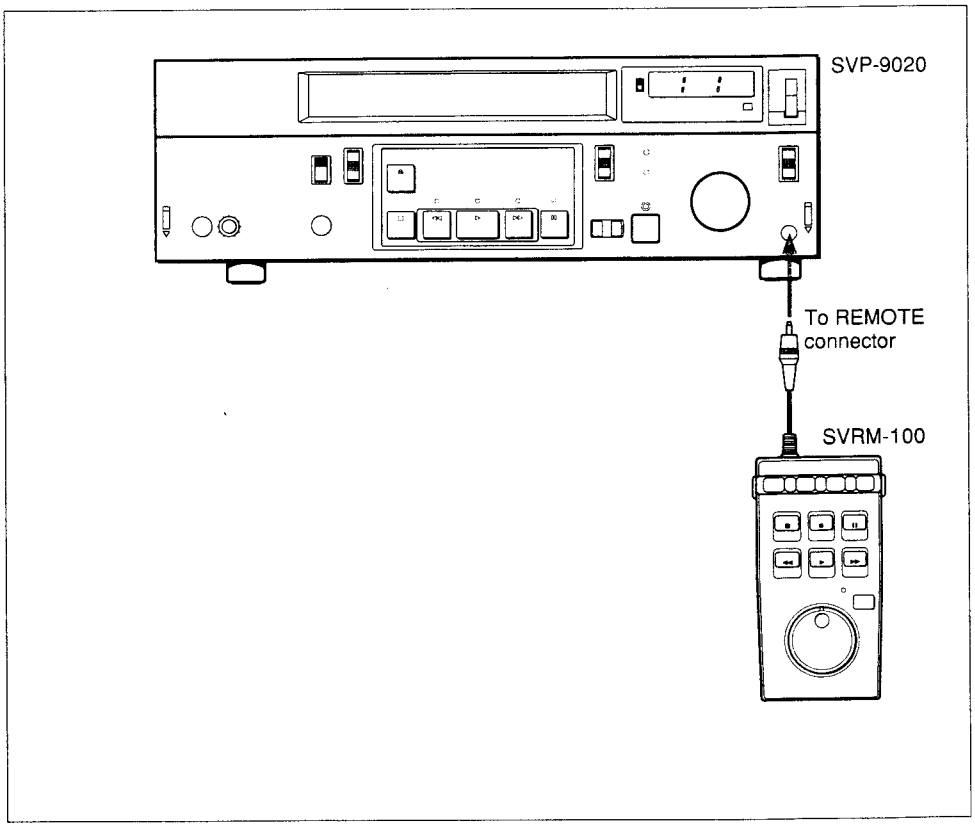


Connecting other video equipment

Controlling the Player with a Remote Control Unit

The connections necessary to enable remote control of the player with the SVRM-100 remote control unit are as follows. The SVRM-100 can be used to control the player to which it is connected. But, the following buttons, of SVRM-100 do not function.

- FREEZE button
- REC button
- INDEX button
- MARK button
- ERASE button



Controlling the player with a remote control unit

Handling Cassettes

Compatible Cassettes

Use S-VHS or VHS tapes with the player. The type numbers and playback times of the cassettes that can be used with this player are listed in the following chart.

S-VHS tape

Type number	Playback time (minutes)
MQSE-30	30
MQSE-60	60
MQSE-120	120

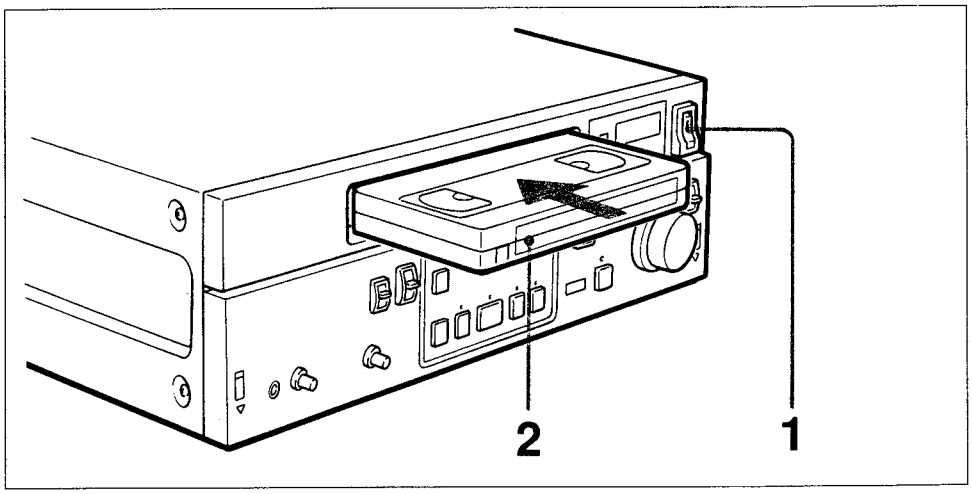
VHS tape (High-Grade type)

Type number	Playback time (minutes)
E-30PM	30
E-60PM	60
E-120PM	120

Notes on Handling and Storing Cassettes

- Do not store cassettes in locations subject to direct sunlight, high humidity or excessive dust, or near heat sources, air ducts or in magnetic fields.
- After use, rewind the tape onto the supply reel to avoid damage to the tape.
- Store the cassette in its case and keep it vertical position.
- Do not drop a cassette and avoid subjecting it to mechanical shock.

Inserting a Cassette



Inserting a cassette

1 Turn the power on.

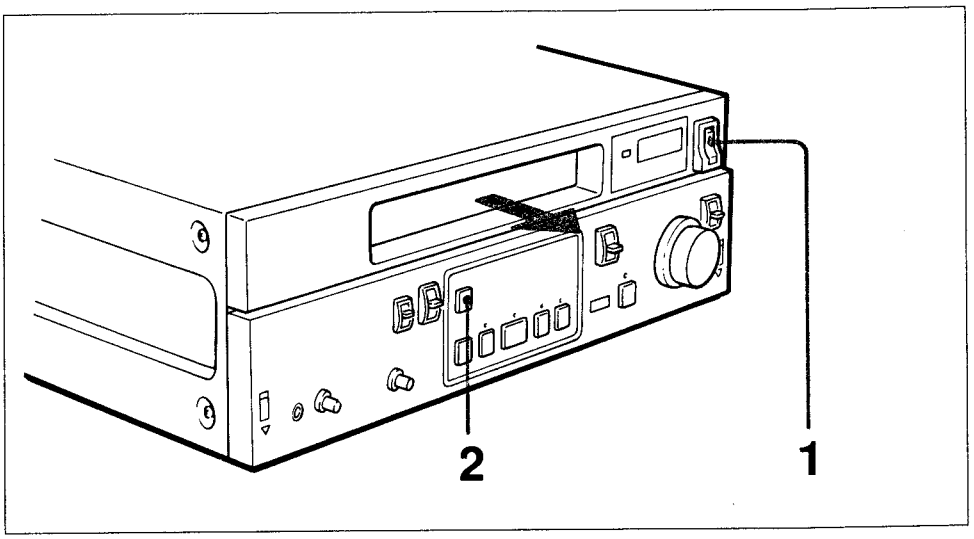
2 Fully insert the cassette into the cassette compartment.

The cassette is automatically pulled into the operating position.

Notes

- Insert the cassette straight into the entrance of the compartment.
- Insert the cassette with its label side up.
- The labels on the cassette should be firmly attached. If they become detached inside the player, you may not be able to eject the cassette.

Ejecting a Cassette



Ejecting a cassette

1 Make sure that the power is turned on.

2 Press the EJECT button.

Caution

Do not attempt to eject a cassette while your fingers are in the cassette compartment.

Chapter 4
Playback

This chapter explains playback, how to locate a desired point, how to repeat playback of a portion, and timer playback.

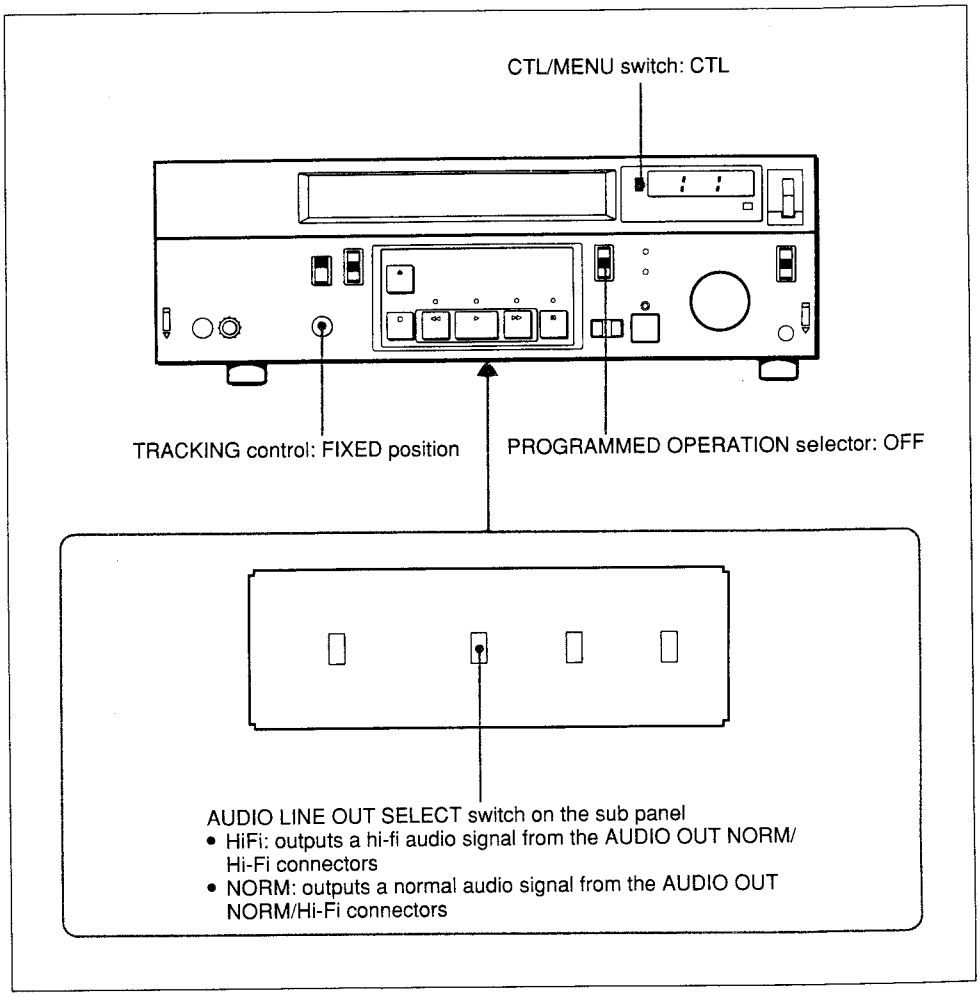
Pre-playback Preparation ..... **4-3(E)**
Pre-playback Setting ..... 4-3(E)
Setting the Still Time ..... 4-5(E)
Playback ..... **4-6(E)**
Repeated Playback of a Desired Portion ..... **4-8(E)**
Locating a Desired Point ..... **4-11(E)**
Timer Playback ..... **4-14(E)**

Pre-playback Preparation

Pre-playback Setting

Checking the switch settings

To prepare for playback, set the selector, control, and switch as follows.


CTL/MENU switch: CTL
TRACKING control: FIXED position
PROGRAMMED OPERATION selector: OFF
AUDIO LINE OUT SELECT switch on the sub panel
• HiFi: outputs a hi-fi audio signal from the AUDIO OUT NORM/ Hi-Fi connectors
• NORM: outputs a normal audio signal from the AUDIO OUT NORM/Hi-Fi connectors

Setting the selector, control and switch

Selecting the audio signal to be monitored

You can monitor the sound. The sound is output from the HEADPHONES connector, AUDIO MONITOR connector, and TV OUT connector. Select the sound to be monitored with the MONITOR OUT Hi-Fi/NORM switch and the CH-1/MIX/CH-2 selector. If you set the CH-1/MIX/CH-2 selector to MIX, stereo sound is output from the HEADPHONES connector and mixed sound for channel-1 and channel-2 is output from AUDIO MONITOR connector.

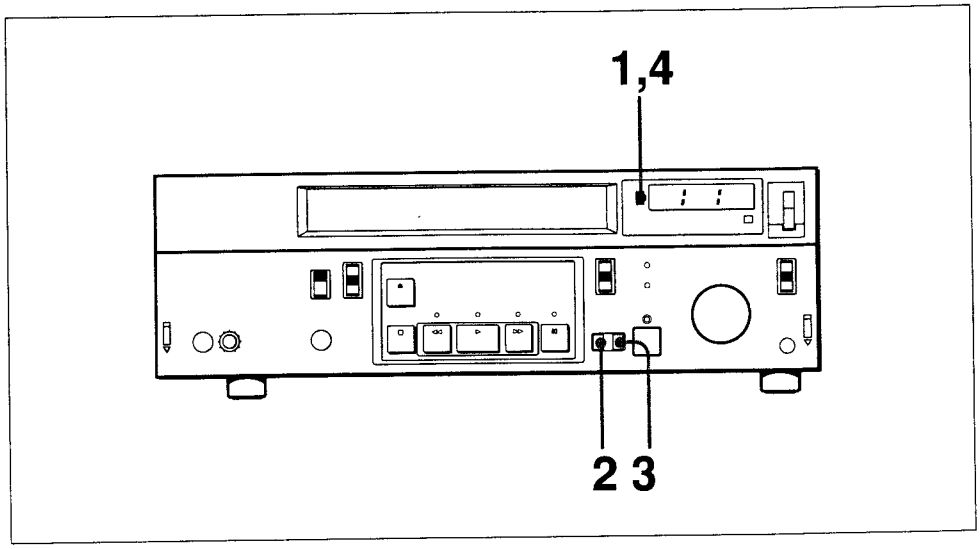
Note

You can not select which signal is output from the AUDIO OUT connector.

Sound to be monitored	Channel to be monitored	MONITOR OUT Hi-Fi/NORM switch setting	CH-1/MIX/CH-2 selector setting
Hi-fi sound	Channel-1	Hi-Fi	CH-1
	Channel-1 and channel-2		MIX
	Channel-2		CH-2
Normal sound	Channel-1	NORM	CH-1
	Channel-1 and channel-2		MIX
	Channel-2		CH-2

Setting the Still Time

If the pause mode is held for more than about 5 minutes, the tape around the head drum automatically slackens to protect the video head and the tape (factory setting). This is called "long pause mode." You can set the still time from the menu. Change the time as follows.



Setting the still time

1 Set the CTL/MENU switch to MENU.

The settable menu items appear on the time counter block.

2 Press the ITEM button repeatedly until "Stt-**" appears.

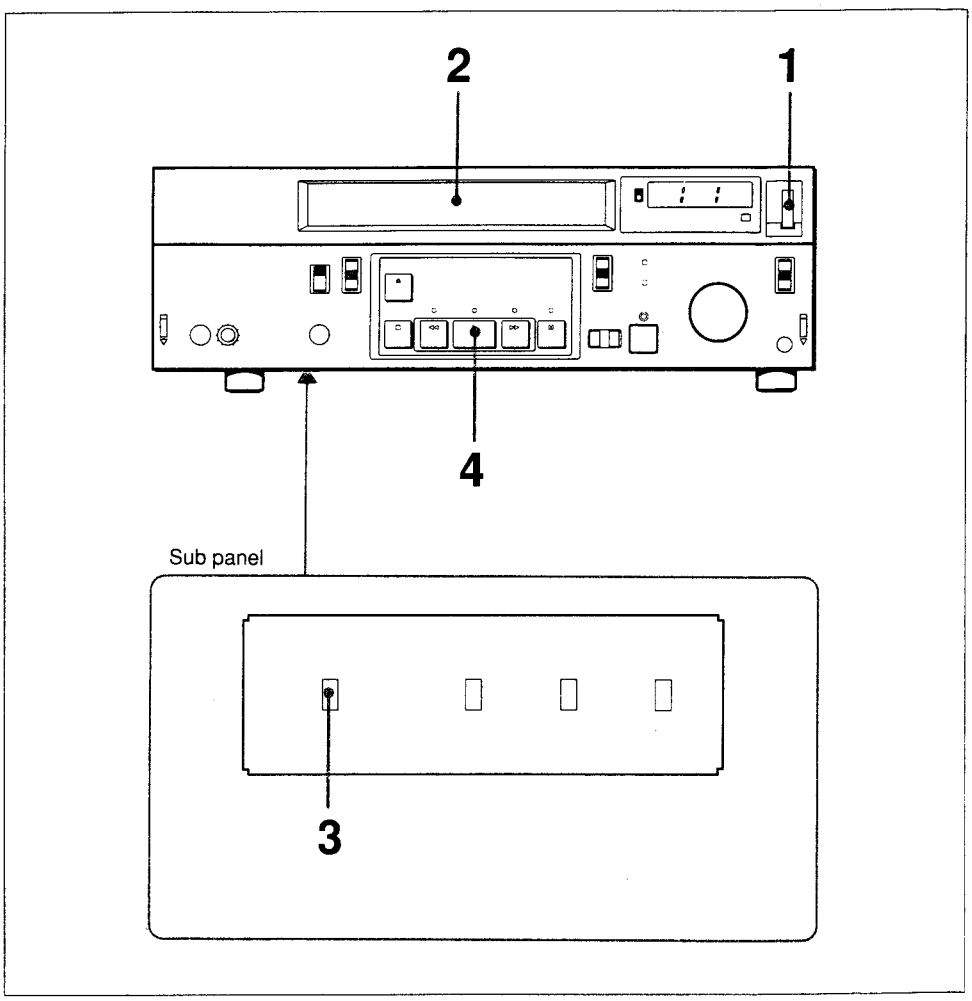
3 Press the DATA button repeatedly to display the desired still time.

Display	Still time
Stt-5	5 minutes
Stt-1	1 minute
Stt-10	10 seconds
Stt- 2	2 seconds

4 Set the CTL/MENU switch to CTL.

The long pause time item displayed in step 3 is set.

Playback



Playback

1 Set the POWER switch to ON.

2 Insert a cassette into the cassette compartment.

3 To play back the audio signal that has been recorded on the audio track using the Dolby NR system, set the DOLBY NR switch on the sub panel.
ON: plays back the audio signal with the Dolby NR system.
OFF: plays back the audio signal without the Dolby NR system.

4 Press the PLAY button.

The player starts playing back.
At tape end, the player automatically rewinds the tape then stops.

To stop the tape momentarily

Press the PAUSE button.
The tape stops and the video monitor displays a still picture.
To resume playback, press the PAUSE button again.

Note

If the tape is paused for longer than the time set from the menu, the still picture disappears from the monitor and the player enters long pause mode. To release long pause mode, press the PAUSE button again. The player immediately resumes playback.

To stop playback

Press the STOP button.

If snow or streaks appear on the picture

When the player plays back a signal, noise, snow or streaks may appear because of a tracking error. To overcome this, slowly turn the TRACKING control so that the best possible picture is obtained.

Note

After playing back this tape, reset the TRACKING control to FIXED.

To play back signals recorded in the NTSC color system

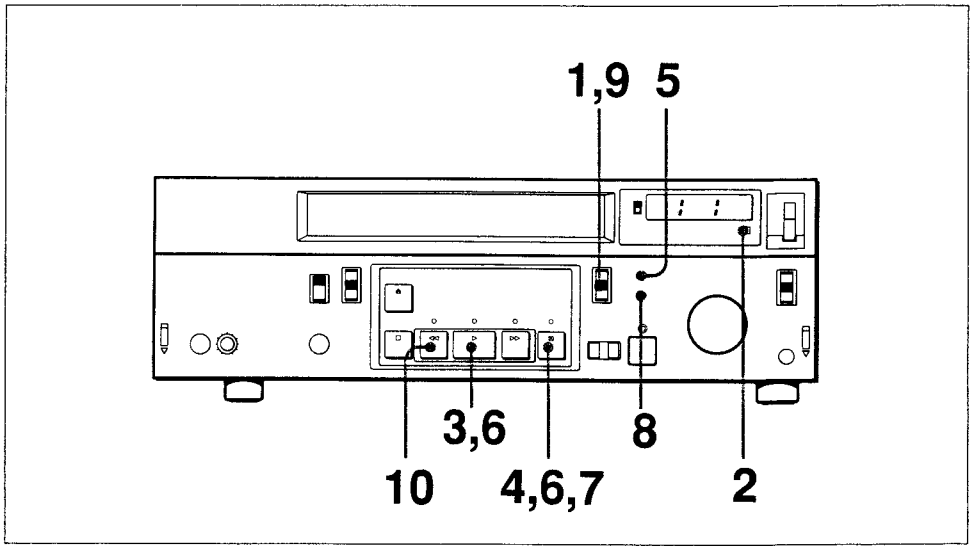
Set the SYSTEM SELECT switch on the sub panel to NTSC 4.43.
To monitor the signal, use a monitor which can display signals of multiple color systems.
The NTSC-recorded signals are played back based on the $NTSC_{4.43}$ system.

Repeated Playback of a Desired Portion

You can repeatedly play back a desired portion using the MARK IN A and B buttons and the PROGRAMMED OPERATION selector.

Three types of repeat playback are supported:
- Repeat playback of a desired portion
- Repeat playback between the beginning of the tape and a particular point
- Repeat playback between a particular point and the tape end

Repeat playback of a desired portion



Repeat playback of a desired portion

1 Set the PROGRAMMED OPERATION selector to OFF.

2 Press the RESET button.

The memorized points are erased.

3 Press the PLAY button.

The player starts playing back.

To repeat the portion between the beginning of the tape and a particular point, go to step 7.

4 Press the PAUSE button at the point where you want playback to start. To locate the desired point precisely, use the shuttle dial.
For details, see " Locating a desired point" on page 4-11(E).

5 Press the MARK IN A button.

The player memorizes the repeat start point (point A).

6 Press the PLAY button or PAUSE button.

The tape restarts playback.

To repeat the portion between a particular point and the tape end, go to step 9.

7 Press the PAUSE button at the point where you want to playback to stop. To locate the desired point precisely, use the shuttle dial.
For details, see "Locating a desired point" on page 4-11(E).

8 Press the MARK IN B button.

The player memorizes the repeat stopping point (point B).

9 Set the PROGRAMMED OPERATION selector to $\overset{A}{\underset{B}{\leftrightarrows}}$.

10 Press the REW button.

The player rewinds the tape and starts repeat playback.

To stop repeat playback

Press the STOP button.

After finishing repeat playback

Reset the PROGRAMMED OPERATION selector to OFF.

To check memorized points A and B

1 Press the STOP button.

2 Set the PROGRAMMED OPERATION selector to $\overset{A}{\underset{B}{\leftrightarrows}}$.

3 Press the MARK IN A or MARK IN B button.

Each memorized point will appear on the time counter while the respective button is held down.

To check the time between two particular points specified for repeat playback

1 Press the STOP button.

2 Set the PROGRAMMED OPERATION selector to A/B.

3 Press the MARK IN A and MARK IN B buttons simultaneously.

The time between the specified points will appear on the time counter while the buttons are held down.

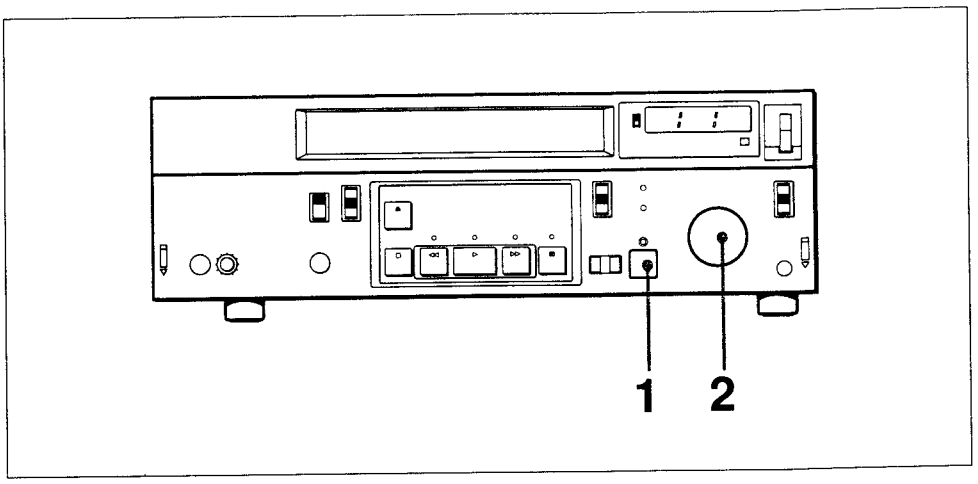
Notes

- When the RESET button is pressed while the PROGRAMMED OPERATION selector is set to OFF or A-B, data is erased from memory and "0:00:00" is set for both buttons.
- The most recently set values for the MARK IN A and B buttons, as well as the most recently set time counter value are maintained, even if the power is turned off. If, however, you perform a memorizing operation and turn off the power within 15 seconds of the power being turned on, the newly registered data will be lost.
- You can memorize only one point for each MARK IN A or B button. If the button is pressed several times, only the last point will be memorized.

Locating a Desired Point

There are two ways of locating a desired point:
- To locate a desired point using the shuttle dial
- To quickly return to a desired point

To locate a desired point using the shuttle dial



To locate a desired point using the shuttle dial

1 Press the SEARCH button.

The monitor displays a still picture.

2 Turn the shuttle dial:
FORWARD(clockwise): to play back in the normal direction.
REVERSE(counterclockwise): to play back in the reverse direction.

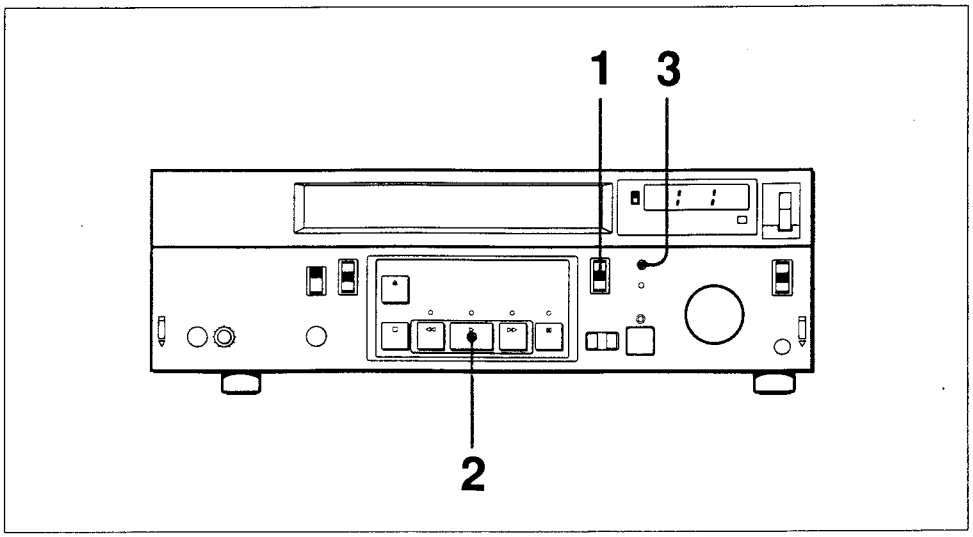
The playback speed can be varied between ±1/20 and ±10 times normal speed, according to the angle of rotation of the dial. The monitor displays a still picture while the dial is set to the center position.

To stop a search operation
Press STOP or one of the other tape transport buttons.

To resume playback
Press the PLAY button.

To quickly return to a desired point

To memorize a desired point



To memorize a desired point

1 Set the PROGRAMMED OPERATION selector to OFF.

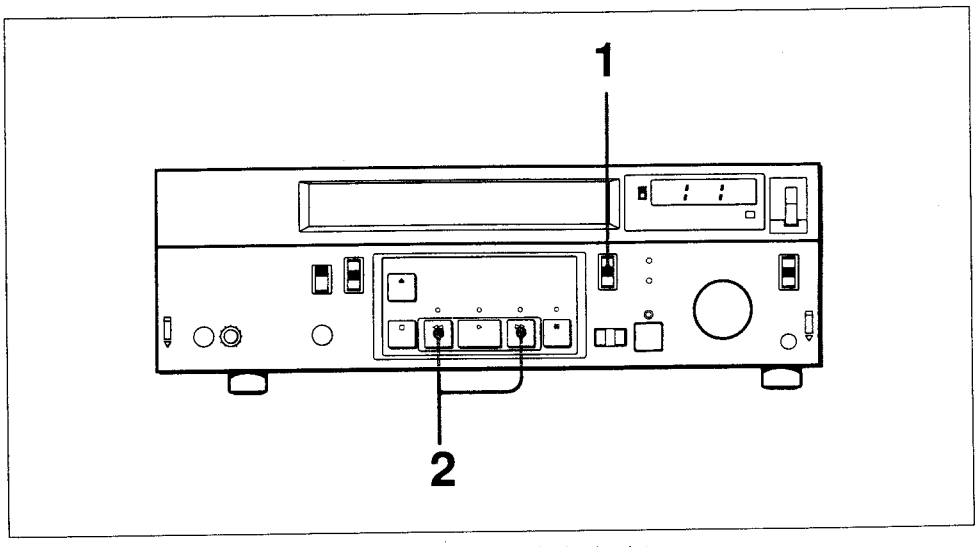
2 Press the PLAY button.

The player starts playing back.

3 Press the MARK IN A button at the point to which you want to rewind.

The player memorizes the point (point A).

To quickly return to a desired point



To quickly return to a desired point

1 Set the PROGRAMMED OPERATION selector to →A←.

2 **When the desired point is prior to the current tape position,** press the REW button or turn the shuttle dial counterclockwise (REVERSE).
When the desired point is subsequent to the current tape position, press the F FWD button or turn the shuttle dial clockwise (FORWARD).

The player starts searching for the point memorized for the MARK IN A button.

To resume playback

Return the PROGRAMMED OPERATION selector to OFF.

To check the desired point

1 Press the STOP button.

2 Set the PROGRAMMED OPERATION selector to A↩B.

3 Press the MARK IN A button.

The memorized point appears on the time counter while the button is held down.

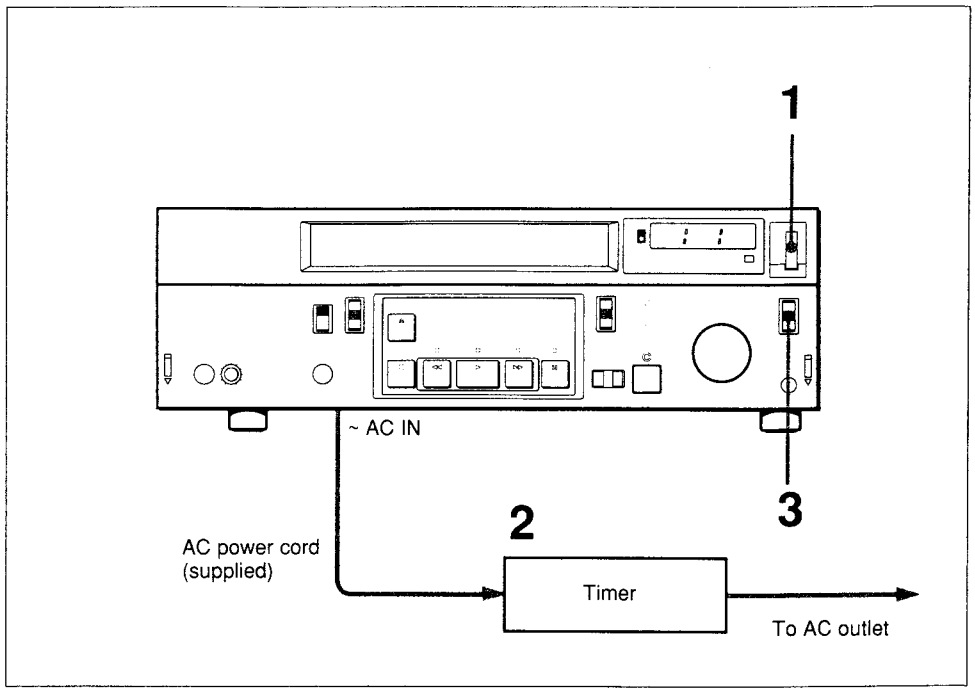
Notes

- If the button is pressed several times, only the last point will be memorized. When the RESET button is pressed with the PROGRAMMED OPERATION selector set to OFF or →A←, all data is erased from memory and "0:00:00" is set for both buttons.
- The most recently set values for the MARK IN A and B buttons and the most recent time counter value are held in memory even if the power is turned off. If, however, you perform a memorizing operation and turn off the power within 15 seconds of the power being turned on, the newly registered data will be lost.
- You can memorize only one point for each MARK IN A or B button.

Timer Playback

Using an optional timer, you can automatically start playback at a preset time.

Timer playback



Timer playback

1 Set the POWER switch of the player to ON.

2 Set the playback start and stop times with the timer.
For details, refer to the operation manual provided with the timer.

3 Set the TIMER switch to PLAY.

The timer automatically turns on the player power at the playback start time.

To stop playback during timer playback

Press the STOP button of the player.

Notes

- The player automatically rewinds the tape then stops. If, however, you set repeat playback between a particular point and the tape end, the player automatically rewinds the tape, enters repeat playback mode and starts playback repeatedly upon reaching the tape end.
- When the playback stop time is reached, the timer turns off the player power with the tape wound around the head drum. At the next playback start time, the timer again automatically turns on the player power. The tape stops momentarily, then timer playback starts.

Chapter 5
Maintenance

This chapter explains troubleshooting, error messages and their meanings, and cleaning the video heads.

Troubleshooting.....5-3(E)
Error Messages and Their Meanings.....5-4(E)
Cleaning the Video Heads.....5-5(E)

Troubleshooting

Should you have a problem with your player, first check the three items in Check list 1 and then the appropriate items from Check list 2 or Check list 3.

CHECK LIST 1

- Check that the AC power cord is firmly connected. *(See page 2-10(E).)*
- Check that the POWER switch is set to ON. *(See page 2-4(E).)*
- Check the connections. *(See page 3-5(E).)*

CHECK LIST 2

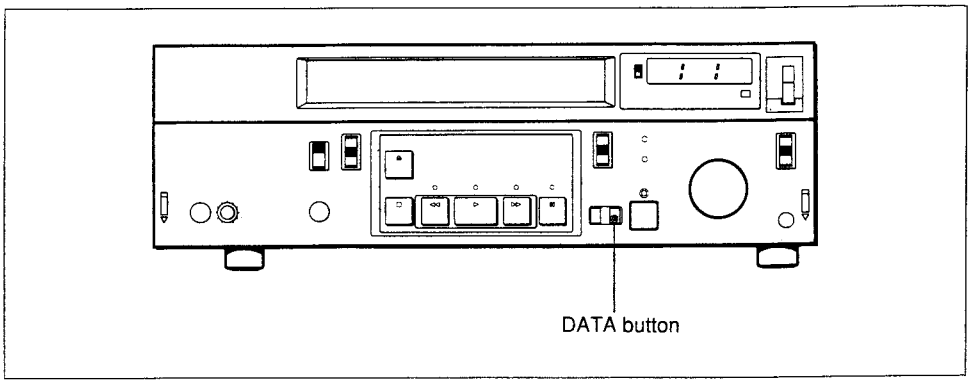
Symptoms	Possible causes and corrective actions	Reference page
AUTO OFF lamp lights and function buttons do not function.	Moisture has condensed inside the player. Keep the power on and wait until the lamp goes off. (This indicates that the moisture has evaporated.)	3-4(E)
The tape stops suddenly and no operation button functions.	Eject the cassette and take up the leader tape manually.	3-9(E)
The cassette cannot be ejected.	Turn off the player and consult your Sony dealer.	3-9(E)

CHECK LIST 3

Symptoms	Possible causes and corrective actions	Reference page
A cassette cannot be inserted.	Insert the cassette correctly. Check whether another cassette has already been inserted. Check whether the AUTO OFF lamp is lit.	3-8(E)
The tape transport does not operate when any of the operation buttons is pressed.	Check that the PROGRAMMED OPERATION selector is set to OFF.	2-5(E)
Snow or streaks appear on the playback picture.	Set the TRACKING control to the FIXED position. Clean the video head. Check that the EDIT switch is set to OFF.	2-5(E) 2-8(E) 5-5(E)
The playback picture does not appear.	Check that the setting of the SYSTEM SELECT switch is correct. Check that the video monitor conforms to the color system of a tape being played back.	2-8(E)

Error Messages and Their Meanings

The SVP-9020 features self-diagnostics. When a problem is detected, an error message appears in the time counter block on the front panel. The error messages that may appear are explained.



Note

If an error message appears, turn off the power and contact your Sony dealer.

Error code	Sub error code	Meaning
Err-01	—	Reel motor clockwise rotation error
Err-02	—	Tape slack
Err-03	—	Capstan motor error
Err-04	—	Drum motor error
Err-05	06 07 09 0A	Abnormal reel rotation
Err-20	02 03 05 06 30	Loading error Unloading error Cassette compartment error Reel motor error Servo lock error
Err-22	—	Interface I/O error
Err-23	—	Tape transport error
Err-30	—	Sensor error
Err-31	—	Sensor error
Err-32	—	Sensor error
Err-90	01 02 00	Tape transport error

Cleaning the Video Heads

Cleaning the video heads

If the picture temporarily disappears or if snow or noise appears on the picture, the video heads may be contaminated and should be cleaned. Use the optional T-25CL cleaning cassette to perform cleaning as follows. *For details, refer to the operation manual supplied with the cleaning cassette.*

1 Remove the cassette being played.

2 Insert the cleaning cassette.

3 Press the PLAY button.

4 Let the cleaning cassette run for about 10 seconds. Then press the STOP button.

5 Press the EJECT button to remove the cleaning cassette.

Notes

- Remove the cleaning cassette immediately to prevent damage to the video head.
- Do not use the cleaning cassette for more than 10 seconds at a time. Excessive use of the cleaning cassette will shorten the life of the heads.
- Do not rewind the cleaning cassette every time it is used. Run the tape to its end, then rewind it.
- You can run through a cleaning cassette four or five times. If used more than five times, the cleaning effect will lessen.
- Do not use a commercially available wet type cleaning cassette. Wet cleaners may damage the video heads.

Replacing the video heads

If picture quality is still inadequate after cleaning, the video heads may require replacement. The life of the heads is approximately 500 to 1000 hours of use. With this player, the accumulated operation time of the heads can be checked as follows.

1 Set the PROGRAMMED OPERATION selector to ⮌.

2 Hold down the RESET button for about two seconds.

The total accumulated operation time of the head drum appears on the counter in units of hours.

Note

For head replacement, consult your Sony dealer.

Appendixes

Menu Items and Their Functions ..... A-3(E)
Specifications ..... A-5(E)
Glossary ..... A-9(E)

Menu Items and Their Functions

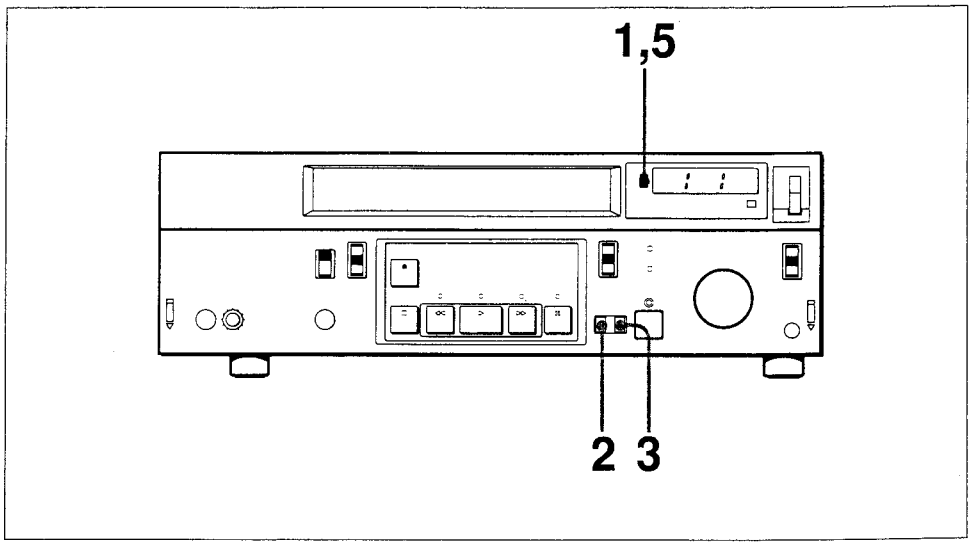
Summary of menu items and their functions

The player features the following four menu items. The boxed numbers in the Display column are the factory settings.

Item	Display	Set data
Still time	Stt [-5] -1 -10 - 2	This item determines long pause mode time. **5:** 5 minutes **1:** 1 minute **10:** 10 seconds **2:** 2 seconds
Digital NR ON/OFF (Valid only when the SVBK-150 is installed in the SVP-9020)	dnr [-On] -OF	**On:** Activates the digital noise reducer. **OF:** Deactivates the digital noise reducer.
Digital CNR ON/OFF (Valid only when the SVBK-150 is installed in the SVP-9020, and the "dnr-On" setting is made.)	Cnr [-On] -OF	**On:** Activates the digital chroma noise reducer. **OF:** Deactivates the digital chroma noise reducer.
Digital YNR ON/OFF (Valid only when the SVBK-150 is installed in the SVP-9020, and the "dnr-On" setting is made.)	Ynr [-On] -OF	**On:** Activates the digital luminance noise reducer. **OF:** Deactivates the digital luminance noise reducer.

Setting menu operation

To change the operation mode of the player, use the menu as follows.



Setting menu operation

1 Set the CTL/MENU switch to MENU.

The items which can be set appear on the time counter block.

2 Press the ITEM button to select the item to be set.

3 Press the DATA button to set the data for the selected item.

4 Repeat steps 2 and 3 as necessary.

5 Set the CTL/MENU switch to CTL.

The data specified in steps 2 and 3 is set.

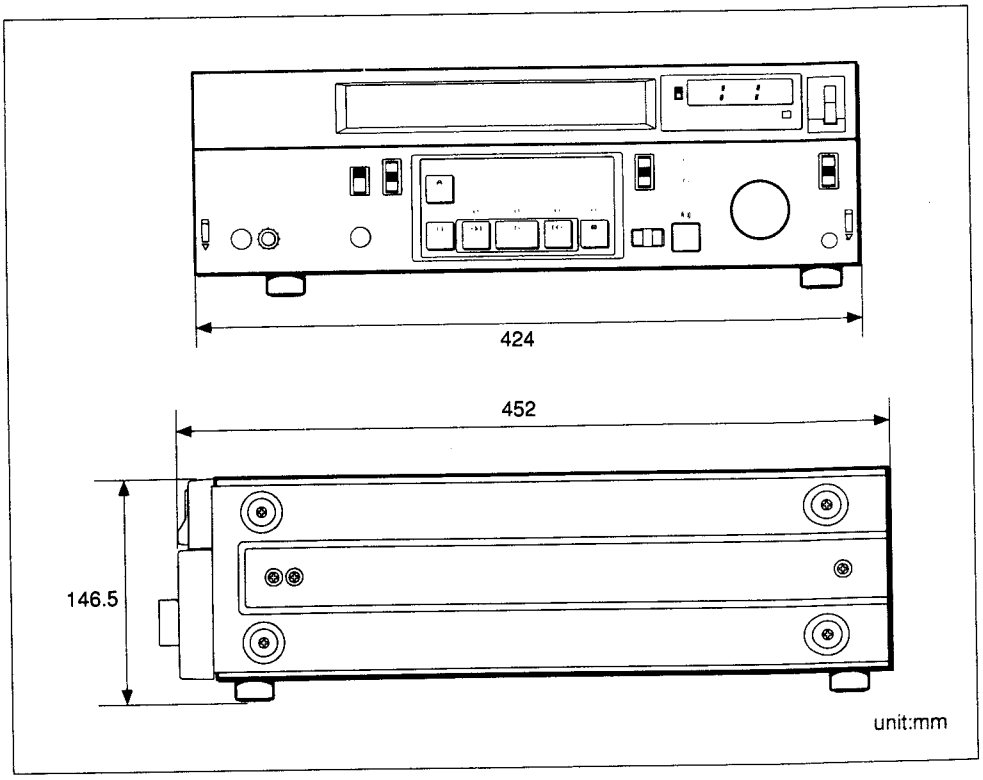
Note

If you set menu operation and turn off the power within 15 seconds of the power being turned on, however, the newly registered data will be lost.

Specifications

General

Power requirements	220 to 240 V AC, 50/60Hz
Power consumption	54W
Operating orientation	Horizontal
Operating temperature	5°C to 40°C (41°F to 104°F)
Dimensions	424 × 146.5 × 452 mm (w/h/d) (16 3/4 × 5 7/8 × 17 7/8 inches) Excluding projecting parts and controls



Weight	Approx. 14 kg (30 lb 14 oz)

System

Signal system	PAL color signal, CCIR standard/NTSC4.43 color signal, EIA standard
Playback system	Rotary 2-head azimuth playback, VHS format
Luminance	FM
Color playback system	Converted subcarrier direct playback

Tape transport

Tape speed	23.39 mm/sec.
Playback time	Approx. 180 minutes (E-180 cassette)
Fast-forward and rewind time	Within 2.5 minutes (E-180 cassette)
Tapes	VHS or S-VHS tapes
Search	Still, 1/20 to 10 times normal speed in both forward and reverse directions

Video

Outputs	VIDEO OUT (BNC type) × 1 Composite video signal: 1.0 ±0.2 Vp-p, 75 Ω, unbalanced, sync negative S VIDEO OUT (4-pin mini DIN) × 1 Luminance signal: 1.0 Vp-p, 75 Ω, unbalanced Color signal: 0.3 Vp-p, burst, 75 Ω, unbalanced TV OUT (8-pin multi) × 1 Composite signal: 1.0Vp-p, 75 Ω, sync negative
Horizontal resolution	More than 240 TV lines (VHS) More than 400 TV lines (S-VHS)
S/N	45 dB(color) (VHS) (Using SVO-9620 recorded tape)

Audio

Outputs	AUDIO OUT NORM/Hi-Fi CH-1/L, CH-2/R (phono jack) × 1 each –6 dBs (47 kΩ load), unbalanced AUDIO OUT Hi-Fi CH-1/L, CH-2/R (phono jack) × 1 each –6 dBs (47 kΩ load), unbalanced MONITOR OUT(phono jack) × 1 –5 dBs (47 kΩ load), unbalanced TV OUT (8-pin multi) × 1 –5 dBs (47 kΩ load), unbalanced HEADPHONES (stereo phone jack) × 1 –18 dBs to –48 dBs (8 Ω load), unbalanced
Tracks	4 tracks (Hifi:2, Normal:2)
S/N	43 dB (normal audio at 3% distortion) (Dolby off)
Frequency response	50 to 12,000 Hz(normal audio) 20 to 20,000 Hz(hi-fi audio)
Dynamic range	90 dB(hi-fi audio)

Synchronism

Input	SYNC IN (BNC type) × 1 0.3 to 4Vp-p, 75 Ω, unbalanced, sync negative

0dBs=0.775V

Supplied accessories

AC power cord(1)
Operating instructions(1)

Optional accessories

SVRM-100 Remote control unit
SVBK-100 33-pin interface board
SVBK-120 RS-232C interface board
SVBK-130 Satellite interface board (Available soon)
SVBK-140 RS-422A interface board
SVBK-150 Digital noise reduction board
SVBK-160 Time code board
RM-450CE Editing control unit
YC-30V/15V/10V S video cable
SYC-2/5 S video cable (with locking rings)
RK-C74 Audio cable
RMM-980 Rack mount kit

Design and specifications are subject to change without notice.

Glossary

Chrominance signal
The signal that carries information about hue and color. Also called the C signal.

Composite video signal
A signal that consists of video, sync, and color burst signals.

CTL signal
Abbreviation for control signal. In players, regular pulses are used to synchronize the tape travel and the scanning position of the video heads. These are recorded on a special track so that the video heads can scan the playback tape accurately.

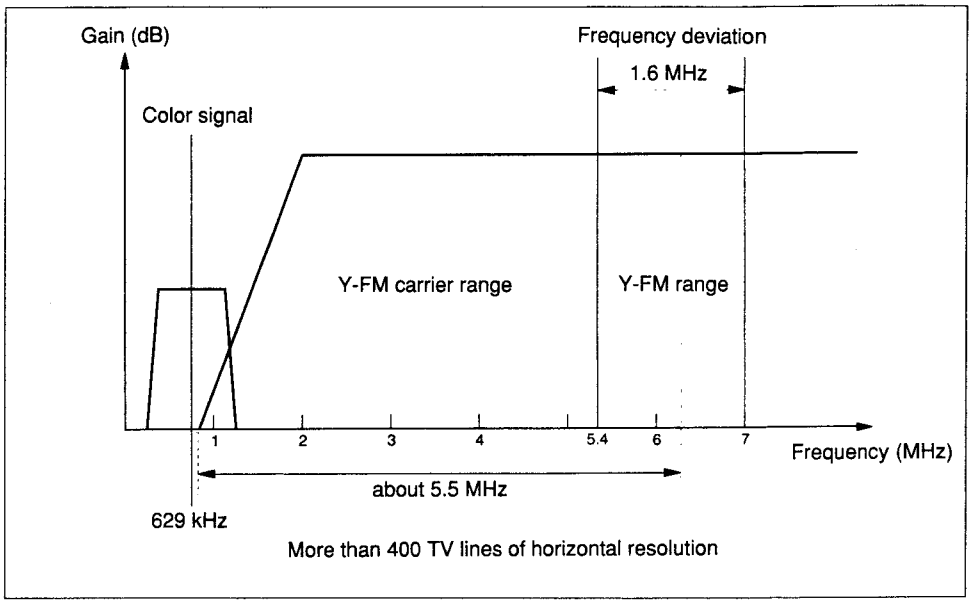
Jitter
Small, rapid aberrations in the horizontal or vertical size that may appear on a display because of phase deviations in the synchronized signal. This may be caused by noise or inconstant tape transport or head drum rotation when the VTR is recording or playing back.

Luminance signal
The signal that determines the brightness of the picture.

S video signal
Separated video signals: Y(luminance) signal and C(chrominance) signal. Separating the video signals results in less deterioration, compared with the composite video signal mixed Y and C signal.

S-VHS format

S-VHS is a newly developed format that provides high resolution and high picture quality (more than 400 TV lines of horizontal resolution). This is made possible by the S-VHS video signal recording/playback circuit and high-quality S-VHS tape. The VTR cannot record/play back ordinary VHS tapes in the S-VHS format.



S-VHS format

Sync signal

A reference signal consisting of vertical and horizontal sync signals and used to synchronize the time codes. Also called the composite sync signal.

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